GSFC DAAC Time Line for Daily Operations

(Draft prepared by EGS I&T)

Strawman version dated February 12, 1998

Objective: Generate a realistic time line of activities for the operations readiness tests and EGS I&T certification tests at the GSFC DAAC.

This first draft is an attempt to identify the daily activities needed at the GSFC DAAC to support the AM1 science data processing. This should serve as an input to the DAAC and EGS I&T teams in planning the DAAC operations readiness tests and EGS certification tests. The reference documents used in the preparation of the timeline are:

a. *MODIS SDPS Version 1 System description (Document Number SDST-065, Change Notice 2, dated July 30, 1997).*
b. *MODIS SDP S/W Requirements Specification V2 and Beyond (Document Number SDST-089, dated December 12, 1996).*

NOTES:

1. Column 2 (Task/Activity) is based on the information in the first document referenced.
2. Column 3 (Comments/Explanations) is based on the information in both of the documents referenced.
3. Column 4 is used to identify the applicable EGS I&T tests as well as the DAAC operations procedures relevant to the task/activity.
4. There are 24 columns shown for the 24 hours in a day. The 25th column shows 0 to 1 hour of the next day just to accommodate the activities like L3 processing done after L2 processing is complete.
5. Ancillary data ingest is shown to be occurring throughout the day simply because it can happen any time of the day. It does not mean that is a 24 hour activity. Later versions of this timeline will show a better scheduling of the ancillary data ingest activity.
6. The L0 data ingest as well as L1 and higher level processing activities include archiving also.
7. The L1A processing is a near-real-time activity since it can begin immediately after the reception of L0 data from EDOS and is not dependent on any other activity. The L1A process generates 24 granules for each run.
8. The L1B processing is dependent on the completion of L1A processing of a granule and can be initiated as soon as an L1A granule is complete. That is why L1B is almost a parallel activity to L1A processing.
9. The transfer of L2G products to EDC and NSIDC are shown to occur at the end because they have to be done after all the data for the day has been processed.
10. There is one activity designated as M&O. This can include all activities like doing back ups, providing services to users and so on.
11. Activities like generation of daily/weekly plans, generation of resource and production plans are shown to occur during the regular shift.
12. Report generation is shown to occur at the beginning of the day assuming that the reports will cover what happened during the preceding 24 hours.
13. The table is generated using the Microsoft Word and later can be implemented as a timeline chart using the Microsoft Project or some other application.
14. The products which are to be generated once in a week or once in 10 days or once in a month have not been shown in the chart, but will be shown in later versions after some discussions with the DAAC team.

This draft is intended to be used for discussions between the GSGC DAAC and EGS I&T teams. Some inputs from the DAAC team has been incorporated in this draft.

#	Task / Activity / Operation	Comments / Explanations	Relevant Tests / Ops Procs.	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 0
1	L0 Ingest and Archiving (G-LC-1 / LRE-1)	2 hrs of data 12 times a day	EGS10, EGS11	
2	L1A Processing (PGE01) and archiving (G-LC-3 / LRE-3)	2 hrs of data 12 times a day I/P: MOD00, MOD03LUT, MOD03DEM O/P: MOD01, MOD03	EGS10, EGS11	
3	L1B Processing (PGE02) (G-LC-6 / LRE-6)	once for each of 288 granules (3 successive granules input) I/P: MOD01, MOD02LUT O/P: MOD02, MOD02QC	EGS10, EGS11	
4	Ingest Ancillary data (G-LC-2 / LRE-2)		EGS10, EGS11	ANY TIME IN THIS PERIOD
5	L2 Masks/Profiles (PGE03) (G-LC-9 / LRE-9) (Dependent on PGE02)	Once for all L1B granules. i/p: MOD02, MOD03, MODANCCF, MODANCAV, MODANCOZ, MODANCST, MODANCQC o/p: MOD07_L2, MODVOLC, MOD35_L2, MODANCL2,	EGS10, EGS11	MANY TIMES IN THIS SLOT
6	L2 Atmosphere Processing (PGE04)	Once for each of 144 day granules i/p: MOD02, MOD03, MOD35_L2, MODANCL2, MOD05LUR, MOD05LUW o/p: MOD05_L2, MOD05_QC, MOD4L_L2, MOD4S_L2, MOD4S_QC	EGS10, EGS11	MANY TIMES IN THIS SLOT
7	L2 Cloud Processing (PGE06)	Once for each of 288 granules i/p: MOD02, MOD03, MOD35_L2, MODANCL2, MOD05LUB, MOD6CTL2, MOD06LUA o/p: MOD05_L2, MOD05_QC,	EGS10, EGS11	MANY TIMES IN THIS SLOT

#	Task / Activity / Operation	Comments / Explanations	Relevant Tests /	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 0
		MOD4L_L2, MOD4S_L2, MOD4S_QC		
8	L3 Interim Land Aerosol (PGE05) Dependent on PGE04	Once for one orbit's data output by PGE04 i/p: MOD4L_L2 o/p: MOD4L_0	EGS10, EGS11	
9	L2 Ocean Processing (PGE)	Once for each of 288 granules	EGS10, EGS11	MANY TIMES IN THIS SLOT
10	L2 Ocean Color (PGE09)	Once for each of 144 day granules	EGS10, EGS11	MANY TIMES IN THIS SLOT
11	L3 Ocean Color Binned product (PGE17)		EGS10, EGS11	
12	L2 Sea Surface Temp (PGE10)	Once for each of 288 granules	EGS10, EGS11	MANY TIMES IN THIS SLOT
13	L3 SST binned product (PGE19)	Once per granule after PGE10 has completed	EGS10, EGS11	MANY TIMES IN THIS SLOT
14	L2 Snow Cover product (PGE07) (Day only land product, dependent on PGE01 and PGE02)	Once for each of 144 day granules i/p: MOD02, MOD03 o/p: MOD10_L2	EGS10, EGS11	MANY TIMES IN THIS SLOT
15	L2 Sea Ice Product (PGE08) (Day only land product, dependent on PGE01 and PGE02)	Once for each of 144 day granules i/p: MOD02, MOD03 o/p: MOD10_L2	EGS10, EGS11	MANY TIMES IN THIS SLOT
16	L2 Reflectance Product (PGE11)	Once for each of 288 granules	EGS10, EGS11	MANY TIMES IN THIS SLOT
17	L2 Land Surface Temp (PGE16)	Once for each tile		MANY TIMES IN THIS SLOT

#	Task / Activity / Operation	Comments / Explanations	Relevant Tests /	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 0
18	L2G Pointers processing (PGE12A, PGE12B)			
19	L2G reflectance/Fire (PGE13A, PGE13b, PGE13C)	Once for each tile	EGS10, EGS11	
20	L2G Snow processing (PGE14)	Once for each tile		
21	Transfer L2G products to EDC	MODMGGA, MODMGPNTR, MOD09, MOD09G, MOD13, MOD14, MOD14G	EGS10, EGS11	
22	Transfer L2G products to NSIDC	MOD10, MOD10G, MOD29, MOD29G	EGS10, EGS11	
23	Verification of inventory updates	This is one of the test objectives		
24	M & O activities (G-LC-13 / LRE-13)	Backup and system administration activities	EGS10, EGS11	
25	Generation of daily Ops plans	This could be a weekly activity also	EGS10, EGS11	
26	Resource / Production Planning		EGS10, EGS11	
27	Report Generation, etc.		EGS10, EGS11	
28	Establish subscription service (G-LC-16 / LRE-16)			
29	ASTER EDS transmission to ASTER GDS	Frequency and mechanism TBD		
30	User access of products and data distribution incl. Tape generation	Any time of the day using B0SOT/JEST		

#	Task / Activity / Operation	Comments / Explanations	Relevant Tests /	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 00
	(G-LC-11 / LRE-11)			
31	Transmit 10% of L1A, L1B data to TLCF for QA (G-LC-4,7 / LRE-4,7)		EGS10, EGS11	SOME TIME IN THIS PERIOD
32	Update QA metadata (G-LC-5,8,10 / LRE-5,8,10)		EGS10, EGS11	ANY TIME IN THIS PERIOD
33	ESDT addition/modification as needed (G-LC-15 / LRE-15)		EGS10, EGS11	ANY TIME IN THIS PERIOD
34	Divert processing of bad data to private ESDT		EGS10, EGS11	ANY TIME IN THIS PERIOD
35	Algorithm activation after SSI&T (G-LC-14 / LRE-14)		EGS10, EGS11	ANY TIME IN THIS PERIOD
36	Bring a science processor down to check failover processing		EGS10, EGS11	ANY TIME IN THIS PERIOD
37	Register a new algorithm (G-LC-14 / LRE-14)		EGS10, EGS11	ANY TIME IN THIS PERIOD
38	Order tracking		EGS10, EGS11	ANY TIME IN THIS PERIOD
39	Check DCE capabilities (system Administration) (G-LC-13 / LRE-13) (add/remove users, cells, etc)		EGS10, EGS11	ANY TIME IN THIS PERIOD